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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|-------------------------|------------------|
| 09/582,903 | 08/11/2000 | KENJI KATO | S004-4034PCT | 3167 |
| 7590 | 01/31/2006 | | | |
| BRUCE L ADAMS ADAMS & WILKS 50 BROADWAY 31ST FLOOR NEW YORK, NY 10004 | | | EXAMINER DINH, TAN X | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2653 | |

DATE MAILED: 01/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|------------------------------------|--|
| Office Action Summary | Application No. 09/582,903 | Applicant(s) KATO ET AL. | |
| | Examiner TAN X. DINH | Art Unit 2653 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-119 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2653

1) Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group A, claims(s) 1-10, 11-14, 101, 103 and 104 drawn to a near-field optical head in general for recording or reproducing information data from an optical storage medium

Group B, claim(s), 15-18 drawn to a near-field optical head capable of reducing a diameter of inverted conical fine aperture in according with thickness of the light reflecting film.

Group C, claim(s) 19, drawn to a near-field optical head capable of increasing thickness of surface substrate due to implanted ions.

Group D, claim(s) 20-27 and 115-119, drawn to a near-field optical head having optical waveguide of sharpened microscopic tip.

Group E, claim(s) 28-30, drawn to a near-field optical head having a core disposed between first and second clads.

Group F, claim(s) 31 and 32, drawn to a near-field optical head having optical waveguide with refractivity different the core.

Group G, claim(s) 33-95 and 114, drawn to a combination between a near-field optical head and an optical disc wherein the tapered hole.

Group H, claim(s) 96-100 and 105-112, drawn to a method for manufacturing a near-field optical head using chemical etching, ion exchange or UV radiation to form a focusing member.

Group I, claim(s) 102, drawn to a method for manufacturing a near-field optical head including the step of plastically deforming the metal in the vicinity of the tip's aperture using a material harder than the metal on aperture.

Group J, claim(s) 113, drawn to a method for manufacturing a near-field optical head by using chemical reaction to form a slant surface having constant angle defines by a planar orientation on the surface of substrate.

2) The inventions listed as Groups A-J do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the inventions of groups A-J are separated as plurality of different independent inventions, as indicated above, and unrelated from one to the other, for example, invention of Group A does not require the features of reducing a diameter of inverted conical fine aperture in according with

thickness of the light reflecting film of group B, or increasing thickness of surface substrate due to implanted ions of Group C, etc.,.

3) Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

4) Any inquiry concerning this communication or earlier communications from the examiner should be directed to TAN XUAN DINH whose telephone number is (571)272-7586. The examiner can normally be reached on MONDAY-FRIDAY from 8:00AM to 5:00PM.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov/> Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



TAN DINH
PRIMARY EXAMINER

January 26, 2006